FIG. 1 Prior art

Pattern (a*|b)x

Character String

This 'a' is searched six times, before the pattern is successfully matched

m = matching succeeding
f = matching failed
M = matching successful

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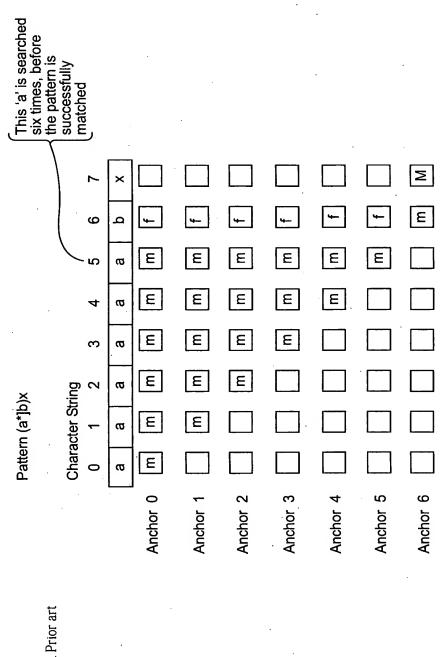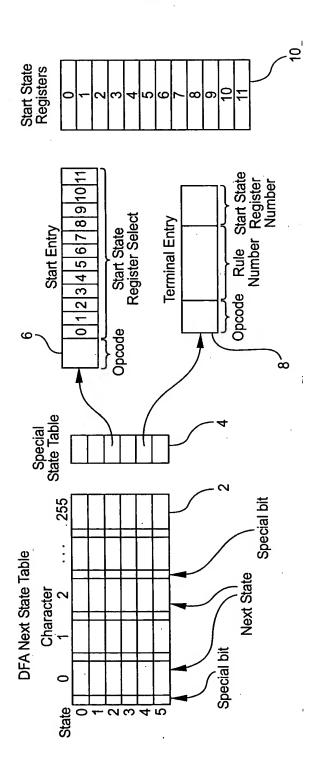Serial No.: 10/773,595
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FIG. 2

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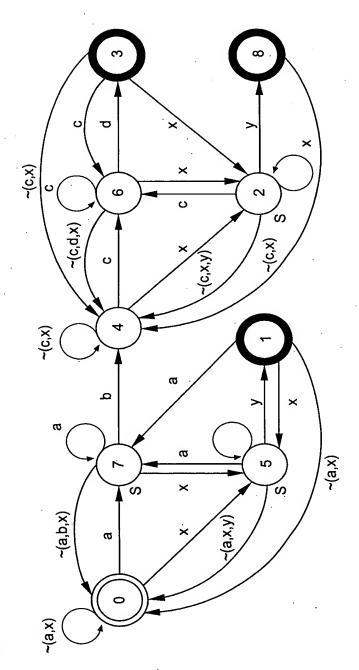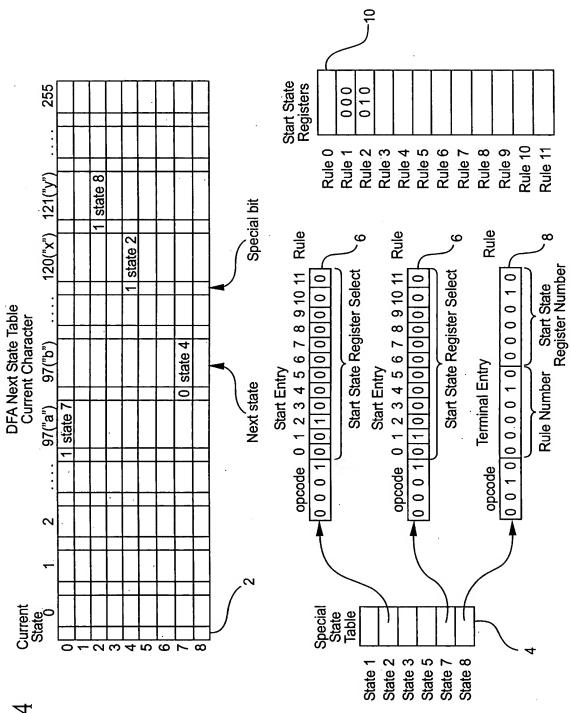Serial No.: 10/773,595
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FIG. 3

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FIG. 4

DFA Next State Table
Current Character

Current State	0	1	2	...	97("a")	97("b")	...	120("x")	121("y")	...	255
0					1 state 7						
1											
2									1 state 8		
3											
4								1 state 2			
5											
6											
7						0 state 4					
8											

Next state   Special bit

2

Start State Registers

Rule 0		
Rule 1	0 0 0	
Rule 2	0 1 0	
Rule 3		
Rule 4		
Rule 5		
Rule 6		
Rule 7		
Rule 8		
Rule 9		
Rule 10		
Rule 11		

10

Start Entry   Rule
opcode 0 1 2 3 4 5 6 7 8 9 10 11
0 0 1 | 0 1 0 0 0 0 0 0 0 0 0
                    Start State Register Select   6

Start Entry   Rule
opcode 0 1 2 3 4 5 6 7 8 9 10 11
0 0 1 | 0 1 0 0 0 0 0 0 0 0 0
                    Start State Register Select   6

Terminal Entry   Rule
opcode 0 0 0 0 0 1 0 0 0 0 1 0
0 1 0 |
        Rule Number   Start State Register Number   8

Special State Table

State 1	
State 2	
State 3	
State 5	
State 7	
State 8	

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FIG. 5

DFA for Rule 1
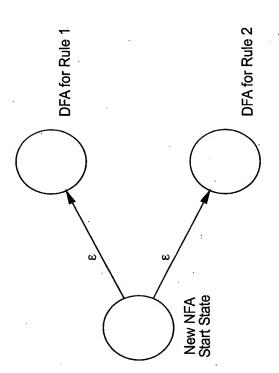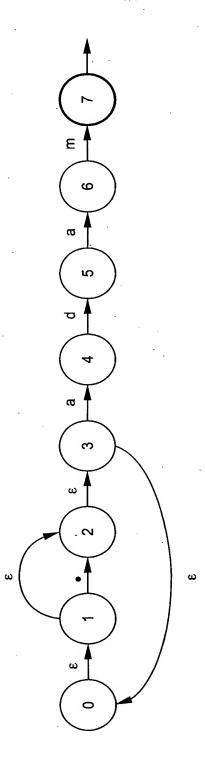
DFA for Rule 2

ε

ε

New NFA
Start State

Meta - NFA

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FIG. 6

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FIG. 7